

SEQUENCE LISTING

<110> Whitehouse, Martha Jo

<120> Methods and Compositions for the  
Treatment and Prevention of Erectile Dysfunction

<130> 1671.003 (35784/208786)

<150> 60/188,480

<151> 2000-03-10

<150> 60/203,415

<151> 2000-05-11

<160> 9

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<210> 1

<211> 441

<212> DNA

<213> Bos taurus

<220>

<221> CDS

<222> (1)...(441)

<400> 1

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Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His  
1 5 10 15

48

ttc aaa gat cca aaa cga cta tat tgt aaa aac ggg ggg ttc ttc cta  
Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu  
20 25 30

96

cga atc cac cca gat ggg cga gta gat ggg gta cga gaa aaa tcc gat  
Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp  
35 40 45

144

cca cac atc aaa cta caa cta caa gcc gaa gaa cga ggg gta gta tcc  
Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser  
50 55 60

192

atc aaa ggg gta tgt gcc aac cga tat cta gcc atg aaa gaa gat ggg  
Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly  
65 70 75 80

240

cga cta cta gcc tcc aaa tgt gta acc gat gaa tgt ttc ttc ttc gaa  
Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Glu  
85 90 95

288

cga cta gaa tcc aac aac tat aac acc tat cga tcc cga aaa tat tcc  
Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser

336

100

105

110

tcc tgg tat gta gcc cta aaa cga acc ggg caa tat aaa cta ggg cca 384  
 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro  
 115 120 125

aaa acc ggg cca ggg caa aaa gcc atc cta ttc cta cca atg tcc gcc 432  
 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala  
 130 135 140

aaa tcc taa 441  
Lys Ser \*  
145

<210> 2  
<211> 146  
<212> PRT  
<213> Bos taurus

<400> 2  
 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His  
 1 5 10 15  
 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu  
 20 25 30  
 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp  
 35 40 45  
 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser  
 50 55 60  
 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly  
 65 70 75 80  
 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Glu  
 85 90 95  
 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser  
 100 105 110  
 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro  
 115 120 125  
 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala  
 130 135 140  
 Lys Ser  
 145

<210> 3  
<211> 441  
<212> DNA  
<213> *Homo sapiens*

<220>  
<221> CDS  
<222> (1)...(441)

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1 5 10 15

ttc aag gac ccc aag cgg ctg tac tgc aaa aac ggg ggc ttc ttc ctg 96

Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu			
20	25	30	
cgc atc cac ccc gac ggc cga gtt gac ggg gtc cgg gag aag agc gac			144
Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp			
35	40	45	
cct cac atc aag cta caa ctt caa gca gaa gag aga gga gtt gtg tct			192
Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser			
50	55	60	
atc aaa gga gtg tgt gct aac cgt tac ctg gct atg aag gaa gat gga			240
Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly			
65	70	75	80
aga tta ctg gct tct aaa tgt gtt acg gat gag tgt ttc ttt ttt gaa			288
Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Glu			
85	90	95	
cga ttg gaa tct aat aac tac aat act tac cgg tca agg aaa tac acc			336
Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Thr			
100	105	110	
agt tgg tat gtg gca ctg aaa cga act ggg cag tat aaa ctt gga tcc			384
Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser			
115	120	125	
aaa aca gga cct ggg cag aaa gct ata ctt ttt ctt cca atg tct gct			432
Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala			
130	135	140	
aag agc tga			441
Lys Ser *			
145			
<210> 4			
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<212> PRT			
<213> Homo sapiens			
<400> 4			
Pro Ala Leu Pro Glu Asp Gly Ser Gly Ala Phe Pro Pro Gly His			
1 5 10 15			
Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu			
20 25 30			
Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp			
35 40 45			
Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser			
50 55 60			
Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly			
65 70 75 80			
Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Glu			
85 90 95			
Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Thr			
100 105 110			
Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser			

115	120	125	
Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala			
130	135	140	
Lys Ser			
145			
<210> 5			
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<213> Bos taurus			
<220>			
<221> CDS			
<222> (1)...(468)			
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1	5	10	15
ggg tcc ggg gcc ttc cca cca ggg cac ttc aaa gat cca aaa cga cta			96
Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu			
20	25	30	
tat tgt aaa aac ggg ggg ttc ttc cta cga atc cac cca gat ggg cga			144
Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg			
35	40	45	
gta gat ggg gta cga gaa aaa tcc gat cca cac atc aaa cta caa cta			192
Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu			
50	55	60	
caa gcc gaa gaa cga ggg gta gta tcc atc aaa ggg gta tgt gcc aac			240
Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn			
65	70	75	80
cga tat cta gcc atg aaa gaa gat ggg cga cta cta gcc tcc aaa tgt			288
Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys			
85	90	95	
gta acc gat gaa tgt ttc ttc gaa cga cta gaa tcc aac aac tat			336
Val Thr Asp Glu Cys Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr			
100	105	110	
aac acc tat cga tcc cga aaa tat tcc tcc tgg tat gta gcc cta aaa			384
Asn Thr Tyr Arg Ser Arg Lys Tyr Ser Ser Trp Tyr Val Ala Leu Lys			
115	120	125	
cga acc ggg caa tat aaa cta ggg cca aaa acc ggg cca ggg caa aaa			432
Arg Thr Gly Gln Tyr Lys Leu Gly Pro Lys Thr Gly Pro Gly Gln Lys			
130	135	140	
gcc atc cta ttc cta cca atg tcc gcc aaa tcc taa			468
Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser *			
145	150	155	

<210> 6  
<211> 155  
<212> PRT  
<213> *Bos taurus*

<400> 6  
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 Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg  
 35 40 45  
 Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu  
 50 55 60  
 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn  
 65 70 75 80  
 Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys  
 85 90 95  
 Val Thr Asp Glu Cys Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr  
 100 105 110  
 Asn Thr Tyr Arg Ser Arg Lys Tyr Ser Ser Trp Tyr Val Ala Leu Lys  
 115 120 125  
 Arg Thr Gly Gln Tyr Lys Leu Gly Pro Lys Thr Gly Pro Gly Gln Lys  
 130 135 140  
 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser  
 145 150 155

<210> 7  
<211> 474  
<212> DNA  
<213> *Homo sapiens*

<220>  
<221> CDS  
<222> (1) ... (468)

<400> 7  
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ggc agc ggc gcc ttc ccg ccc ggc cac ttc aag gac ccc aag cgg ctg 96
Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu
20 25 30

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tac tgc aaa aac ggg ggc ttc ttc ctg cgc atc cac ccc gac ggc cga 144  
 Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg  
 35 40 45

gtt gac ggg gtc cg<sup>50</sup> gag aag agc gac cct cac atc aag cta caa ct<sup>55</sup> t Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu 60 192

caa gca gaa gag aga gga gtt gtg tct atc aaa gga gtg tgt gct aac 240  
 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn  
 65 70 75 80

cgt tac ctg gct atg aag gaa gat gga aga tta ctg gct tct aaa tgt	288
Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys	
85	90
95	
gtt acg gat gag tgt ttc ttt ttt gaa cga ttg gaa tct aat aac tac	336
Val Thr Asp Glu Cys Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr	
100	105
110	
aat act tac cgg tca agg aaa tac acc agt tgg tat gtg gca ctg aaa	384
Asn Thr Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu Lys	
115	120
125	
cga act ggg cag tat aaa ctt gga tcc aaa aca gga cct ggg cag aaa	432
Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly Pro Gly Gln Lys	
130	135
140	
gct ata ctt ttt ctt cca atg tct gct aag agc tga ttttaa	474
Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser *	
145	150
155	

<210> 8  
<211> 155  
<212> PRT  
<213> Homo sapiens

Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly			
1	5	10	15
Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu			
20	25	30	
Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg			
35	40	45	
Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu			
50	55	60	
Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn			
65	70	75	80
Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys			
85	90	95	
Val Thr Asp Glu Cys Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr			
100	105	110	
Asn Thr Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu Lys			
115	120	125	
Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly Pro Gly Gln Lys			
130	135	140	
Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser			
145	150	155	

<210> 9  
<211> 9  
<212> PRT  
<213> Bos taurus

<400> 9		
Met Ala Ala Gly Ser Ile Thr Thr Leu		
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